Amendments to the Claims:

Following is a listing of all claims in the present application, which listing supersedes all previously presented claims:

Listing of Claims:

1. (Withdrawn) An air-gap type film bulk acoustic resonator (FBAR), comprising:

a substrate having a cavity in an upper surface of the substrate;

a first dielectric layer on the upper surface of the substrate around the cavity;

a resonance part including

a first electrode on part of the first dielectric layer,

a second electrode on the first dielectric layer, exclusive of the first electrode, and

a piezoelectric layer between the first and second electrodes;

a second dielectric layer formed on the resonance part; and

a via exposing a pad for providing electrical contact with the first and second electrodes.

2. (Withdrawn) The FBAR as claimed in claim 1, further comprising a conductive layer on a bottom surface of the cavity.

3. (Withdrawn) The FBAR as claimed in claim 1, further comprising an element integrated onto a bottom surface of the cavity.

4. (Withdrawn) The FBAR as claimed in claim 3, wherein the element includes at least one of a passive element and an active element.

5. (Original) The FBAR as claimed in claim 1, further comprising a substrate film of a predetermined thickness on the second dielectric layer.

6. (Withdrawn) The FBAR as claimed in claim 5, further comprising:

a third dielectric layer on a portion of a surface of the substrate film; and

a second substrate contacting the third dielectric layer, the second substrate including a cavity formed apart from where the second substrate contacts the third dielectric layer.

7. (Original) A method of fabricating an air-gap type film bulk acoustic resonator (FBAR), comprising:

forming a resonance part on a first substrate, the forming of the resonance part including sequentially providing a first dielectric layer, a first electrode, a piezoelectric layer, and a second electrode on the first substrate;

forming a cavity in a second substrate;

securing the first substrate with the second substrate so that the resonance part is located in the cavity;

packaging including removing the first substrate after the securing; and

exposing part of the first and second electrodes to form a pad by removing corresponding portions of the first dielectric layer part of the resonance part.

8. (Original) The method as claimed in claim 7, wherein the forming of the resonant part includes:

depositing the first dielectric layer on the first substrate;

selectively depositing the first electrode on the first dielectric layer;

selectively depositing the piezoelectric layer on the first electrode and the first dielectric layer; and

selectively depositing the second electrode on the first electrode, the first dielectric layer and the piezoelectric layer.

9. (Original) The method as claimed in claim 7, wherein the forming of the cavity includes:

depositing a second dielectric layer on the second substrate;

exposing part of the second substrate surface by removing part of the second dielectric layer; and

etching the exposed part of the second substrate to form the cavity.

10. (Original) The method as claimed in claim 9, wherein the securing of the first and second substrates includes contacting the first substrate and the second dielectric layer on the second substrate.

11. (Original) The method as claimed in claim 7, further comprising selectively depositing a conductive layer on a bottom surface of the cavity before the securing.

12. (Original) The method as claimed in claim 7, further comprising integrating a specified element on a bottom surface of the cavity before the securing.

13. (Original) The method as claimed in claim 12, wherein the element includes at least one of a passive element and an active element.

14. (Original) The method as claimed in claim 7, further comprising tuning a resonance frequency by controlling a thickness of the first dielectric layer in the resonance part.

15. (Original) The method as claimed in claim 7, wherein the securing includes bonding using one of adhesive bonding and eutectic bonding.

16. (Original) The method as claimed in claim 7, wherein the packaging includes etching the first substrate to a predetermined thickness.

17. (Original) The method as claimed in claim 16, wherein the packaging includes:

selectively depositing a third dielectric layer on a third substrate leaving an exposed part of the third substrate;

forming another cavity by etching the exposed part of the third substrate; and

securing the third substrate with the first substrate at the third dielectric layer.

18. (Withdrawn) A single-chip duplexer having an air-gap type film bulk acoustic resonator (FBAR) filter, comprising:

a substrate having first and second cavities formed on an upper surface of the substrate;

a first dielectric layer deposited on the upper surface of the substrate around the first and second cavities;

a first air-gap type FBAR including a first resonance part over the first cavity;

a second air-gap type FBAR including a second resonance part over the second cavity; and

an isolation part between the first air-gap type FBAR and the second air-gap type FBAR.

19. (Withdrawn) The duplexer as claimed in claim 18, wherein each of the first and second resonance parts includes:

a lower electrode on an upper surface of the first dielectric layer on one side of a cavity and extending over the cavity;

an upper electrode on the upper surface of the first dielectric layer on an opposite side of the cavity and extending over the cavity; and

a piezoelectric layer formed between the lower electrode and the upper electrode over the cavity.

20. (Withdrawn) The duplexer as claimed in claim 18, wherein the first air-gap type FBAR serves as a transmitter filter and the second air-gap type FBAR serves as a receiver filter.

21. (Withdrawn) The duplexer as claimed in claim 20, wherein the transmitter filter and the receiver filter are implemented by connecting more than one air-gap type FBARs.

22. (Withdrawn) The duplexer as claimed in claim 20, wherein the isolation part includes a capacitor and a resistor, and introduces a phase difference between frequencies of

signals input to the transmitter filter and the receiver filter.

23. (Withdrawn) The duplexer as claimed in claim 18, wherein the isolation part includes:

a second dielectric layer on the substrate;

a first conductive layer on part of the upper surface of the second dielectric layer;

a third dielectric layer on part of the first conductive layer and on part of the upper surface of the second dielectric layer;

a second conductive layer on part of the third dielectric layer over the first conductive layer and on part of the third dielectric layer below which the first conductive layer is not present;

an insulating film on part of the second conductive layer and on an upper part of the third dielectric layer; and

a conductive coil on an upper part of the insulating film and on upper parts of exposed first and second conductive layers.

24. (Original) A method of fabricating a single-chip duplexer using an air-gap type film bulk acoustic resonator (FBAR) filter, comprising:

forming a first substrate part having first and second resonance parts formed at predetermined intervals on a surface of a first substrate;

forming a second substrate part including

forming first and second cavities at the predetermined intervals on a second substrate, and

forming an isolation part between the first and second cavities;

securing the first substrate part and the second substrate part so that the isolation part is located between the first and second resonance parts and the first and second resonance parts are over the first and second cavities, respectively; and

removing the first substrate of the first substrate part after the securing.

25. (Original) The method as claimed in claim 24, wherein the forming of the first substrate part includes:

selectively depositing a first dielectric layer on the first substrate to form first and second dielectric portions;

depositing first and second lower electrodes on part of the first and second dielectric portions, respectively;

forming first and second piezoelectric layers on part of the first and second lower electrodes, respectively; and

depositing first and second upper electrodes on the piezoelectric layers and on part of the first and second dielectric portions not having the first and second lower electrodes, respectively.

26. (Original) The method as claimed in claim 24, wherein the forming of the second substrate part includes:

selectively depositing a second dielectric layer on the second substrate forming first and second dielectric portions spaced apart from each other at a distance corresponding to a distance between the first and second resonance parts; and

etching the second substrate without the second dielectric layer to form the first and second cavities.

27. (Original) The method as claimed in claim 24, wherein the forming of the second substrate further includes:

forming a capacitor having two conductive layers and a dielectric layer between the two conductive layers; and

forming a coil of another conductive layer on an upper part of the capacitor to form an inductor.

28. (Original) The method as claimed in claim 24, wherein the forming of the second substrate part further includes:

depositing a first conductive layer on part of the second dielectric layer located between the first and second cavities;

depositing a third dielectric layer on part of the first conductive layer and on the second dielectric layer;

depositing a second conductive layer on the third dielectric layer over the first conductive layer and on part of the third dielectric layer not over the first conductive layer;

coating an insulating film on part of the second conductive layer and on part of the third dielectric layer; and

depositing a third conductive layer including forming a coil on exposed first and second conductive layers and on part of the insulating film.

29. (Original) The method as claimed in claim 24, further comprising forming a pad by removing part of the first dielectric layer to expose lower and upper electrodes of the first and second resonance parts.

30. (Original) The method as claimed in claim 24, wherein the securing includes bonding the first and second substrate parts using one of adhesive bonding and eutectic bonding.

31. (Original) The method as claimed in claim 24, wherein at least two resonance parts are formed on the first substrate, and at least two cavities are formed on the second substrate, a number of resonance parts being equal to a number of cavities.